

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Raritan Bay Slag Site - Remedial - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region II

**Subject:** POLREP #8  
Progress  
Raritan Bay Slag Site - Remedial  
A205  
Old Bridge, NJ  
Latitude: 40.4543218 Longitude: -74.2381070

**To:** Peter Lopez, ORA  
Angela Carpenter, ERRD  
Dan Harkay, ERRD  
Tanya Mitchell, ERRD  
Stephanie Vaughn, ERRD  
Michael Vanitalie, ORC

**From:** Andrew L. Confortini, OSC  
**Date:** 10/10/2017  
**Reporting Period:** October 2, 2017 through October 6, 2017

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A205	<b>Contract Number:</b>	EP-S2-15-02
<b>D.O. Number:</b>	D.O.#47/#54	<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	
<b>NPL Status:</b>	NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	2/21/2017	<b>Start Date:</b>	2/21/2017
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	NJN000206276	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

On-going release of heavy metals into adjacent soil, wetlands and water. The source of the heavy metals are related to the waste created during the recovery of lead from used batteries. The waste is primarily in the form of slag and battery casings. This waste was used as fill in the Margaret's Creek portion of the Site. The presence of this waste has been confirmed and will be removed and disposed off-site. This work is being performed as a Remedial Action pursuant to the Record of Decision (ROD) for the Site.

#### 1.1.2 Site Description

The Margaret's Creek Sector of the Raritan Bay Slag Site is approximately 47-acres of open space consisting of wetland and upland areas. Portions of the upland area is filled with slag and battery casings. The slag was brought to the Site approximately 50 years ago.

##### 1.1.2.1 Location

The Margaret's Creek Sector of the Raritan Bay Slag Site is located between the Laurence Harbor and Cliffwood Beach sections of Old Bridge Township, Middlesex County, New Jersey.

##### 1.1.2.2 Description of Threat

EPA has conducted multiple sampling events at the Site since 2008 under both the removal and remedial programs. The sampling activities included the collection of soil, sediment, water, and waste samples within the Margaret's Creek Sector. Analytical results generated by EPA indicate that significantly elevated levels of lead and other heavy metals are present in the soils and sediment. Analytical results for surface soil samples collected within the Margaret's Creek Sector were as high as: 78,000 mg/kg for lead. Representative samples of the excavated wastes generated during previous mitigation work have exceeded the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure limit for lead (5 mg/l).

##### 1.1.3 Preliminary Remedial Assessment/Remedial Site Inspection Results

Information pertaining to the assessment and Site inspection results can be found in the Record of Decision (ROD) and the Final Design Analysis Report (DAR) for the Site, which are available through the Remedial Project Manager and website established for this Site.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

The overall approach to this Remedial Action is to remove crushed battery casings, slag and lead-contaminated soil to prevent the direct contact threat to the public and the migration of contaminated materials to adjacent wetlands, and public recreation areas.

As part of this approach, contaminated soil, slag, and debris is being excavated and stockpiled on a 30 mil HDPE impermeable liner. Stockpiled waste material are then screened to remove slag, rocks, and debris larger than 6-inches in size. The screening process results in two waste streams; 1) waste larger than 6-inches consisting primarily of slag and 2) waste less than 6-inches consisting primarily of soil, battery casings and smaller pieces of slag. Slag waste larger than 6-inches cannot be properly stabilized and must be crushed prior to treatment.

### **2.1.2 Response Actions to Date**

Response actions completed prior to October 2, 2017 are described in previous POLREPs for the Site.

The following actions have been completed during this reporting period:

- \* Response actions in support of the Remedial Action included delineation soil sampling events for the purpose of defining the horizontal and vertical extent of lead contamination in areas of concern (AOC) identified in the DAR.
- \* On October 2, 3, 4 and 5, 2017, 1,011.91 tons of hazardous waste (D008) was transported off-site for stabilization and disposal. To date, a total of 7585.385 tons of hazardous waste (<6-inches) has been transported off-site.
- \* On October 2, 2017, excavation of battery casings and soil within AOC-K, M, N, Y1 and Z was completed. The material excavated from each of these AOCs was transported to the soil staging area and was included in the processed soil stockpile for load out.
- \* On October 3, 2017, excavation of battery casings and soil within AOC-L and Y2 was completed, with the exception of a small area containing non-friable asbestos-containing material (ACM). The excavation of the ACM was completed on October 4, 2017. This material was included in the on-site ACM stockpile located adjacent to AOC-H. All other non-ACM was transported to the soil staging area and was included in the processed soil stockpile for load out. During the excavation of ACM, a slag layer was identified within AOC-Y2 which extended to a depth of approximately 36-inches below grade.
- \* On October 4, 2017, excavation of battery casings and soil within AOC-X1 and X2 was completed. The material excavated from each of these AOCs was transported to the soil staging area and was included in the processed soil stockpile for load out. During the
- \* On October 5, 2017, six (6) test pits were installed in the vicinity of the slag observed in AOC-Y2. Based upon an inspection of the test pits, the slag within AOC-Y2 was limited to a small area and was immediately excavated and transported to the soil staging area for screening. Post-excavation soil samples will be collected from this AOC during the next reporting period.
- \* A progress status conference call with the Remedial Project Manager (RPM) occurred on October 3, 2017.
- \* Delineation sediment samples collected within AOC-F and AOC-S to define the limits of the proposed excavation have been received and validated. The analytical results confirmed that all samples contained a lead concentration below the Site remediation objective of 400 mg/kg. The results will be provided to the RPM to confirm the approach to complete the excavation activities in each of these AOCs.
- \* Perimeter air monitoring, in accordance with the Community Air Monitoring Plan (CAMP), was conducted by Weston Solutions, Inc. Weekly air monitoring summary reports are being provided to EPA and maintained on-site. No significant air exceedances were reported during the work day monitoring periods.
- \* On-site security services continued during non-working Site hours.
- \* Personal air monitoring on contractor operators and laborers began on July 20, 2017 and is being conducted by Environmental Restoration, LLC (ER). ER is EPA's emergency and rapid response services (ERRS) contractor for this project. To date, the personal air monitoring results for lead have been below the site-specific action level of 30 microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) of air. The OSHA permissible exposure level for lead is 50  $\mu\text{g}/\text{m}^3$ .
- \* At this time, the project is estimated to be 40% complete.

### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

Enforcement activities are being managed by the Remedial Program.

### **2.1.4 Progress Metrics**

Stabilization of the waste containing slag less than 6-inches in diameter is being conducted by Clean Earth of New Jersey, Kearny, NJ and transported to Grows North Landfill in Morrisville, PA for disposal. See Additional Sources of Information section for waste shipping and disposal information.

## **2.2 Planning Section**

### **2.2.1 Anticipated activities for the next reporting period**

#### **2.2.1.1 Planned Response Activities**

- \* Completion of initial backfilling of AOC-Y1, L, M, N and Z.
- \* Continue perimeter air monitoring in accordance with the Community Air Monitoring Plan (CAMP).
- \* Relocation of ACM stockpile to an area adjacent to the access road for future load out.
- \* Delivery of additional supplies.
- \* Loading waste for off-site disposal.
- \* Excavation of lead-contaminated soil in AOC's I, R and S.
- \* Collection of post-excavation soil samples.

- \* Complete an evaluation of all post-excavation and delineation soil sample results to insure site remediation goals have been met.
- \* Complete slag and soil excavation activities within the eastern portion of AOC-H.
- \* Disposal alternatives for the lead waste containing ACM have been provided to EPA. An off-site compliance check was completed and the facility is approved to accept this waste. The facility is currently completing a pilot test for the stabilization of this waste stream. Arrangements will be made to transport this material off-site for disposal once an approval number is issued.
- \* Prior to issuing an approval number for disposal of slag >6-inches in diameter, the disposal facility requires three truckloads of slag to confirm the effectiveness of the crushing and treatment process. The three truckloads are anticipated to be provided during the next reporting period.

### **2.2.1.2 Next Steps**

- \* Preparation of the weekly air monitoring report.
- \* Conducting the weekly progress meeting with the RPM.

### **2.2.2 Issues**

- \* The sequencing of excavation activities has deviated from the Design Analysis Report (DAR). Excavation work will proceed as follows: AOC H, E, U, V, W, S, Q, P, O, F, I, M, N, K, L/Y2, X1, X2, X3, Z and A.

\* On September 6, 20 representative soil samples of proposed topsoil material were collected at the EME facility located in New Egypt, NJ. If approved for on-site use by EPA, 5,000 tons of upland topsoil and 2,000 tons of wetlands topsoil will be delivered to the Site. If the topsoil is not approved for use, a replacement source will need to be identified and sampled. The analysis and analytical review timeframe is approximately 45-days from sample collection could delay final restoration of the Site.

\* The complete validated analytical results package for proposed bank run sand has been received and provided to the RPM for review and approval. If approved for use, 3,000-tonns of bank run sand can be scheduled for delivery and enable excavation backfilling to continue.

\* The off-site transportation and disposal of D008 soil and debris is being limited by the disposal vendor's permit requirements. EPA is evaluating the utilization of an alternate vendor to expedite the transportation and disposal process.

\* Significant rainfall events may affect operations if the water level in Margaret's Creek rise and back up into the low-lying portions of the Site.

## **2.3 Logistics Section**

No information available at this time.

## **2.4 Finance Section**

### **2.4.1 Narrative**

On September 9, 2016, \$7,000,000 was allocated to the regional Emergency & Rapid Response Services (ERRS) contract for this project. On February 6, 2017, an additional \$6,550,000 was added to the existing funding for the Remedial Action.

Funding for the Removal Support Team (RST) was allocated on October 27, 2016 (\$200,000) and February 6, 2017 (\$450,000).

Project costs shown below are as of October 6, 2017.

### **Estimated Costs \***

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$13,550,000.00	\$1,768,811.45	\$11,781,188.55	86.95%
RST/START	\$650,000.00	\$249,251.75	\$400,748.25	61.65%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	<b>\$14,200,000.00</b>	<b>\$2,018,063.20</b>	<b>\$12,181,936.80</b>	<b>85.79%</b>

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## **2.5 Other Command Staff**

### **2.5.1 Safety Officer**

None

### **2.5.2 Liaison Officer**

None

### **2.5.3 Information Officer**

None

## **3. Participating Entities**

### **3.1 Unified Command**

### **3.2 Cooperating Agencies**

: New Jersey Department of Environmental Protection;  
: Middlesex County Parks and Recreation;  
: Middlesex County Mosquito Commission;  
: Middlesex County Utilities Authority;  
: Old Bridge Township Municipal Utilities Authority;  
: Old Bridge Township Parks and Recreation.

#### 4. Personnel On Site

EPA OSC  
EPA RPM  
ERRS Contractor (6-7 personnel)  
RST 3 Contractor (1-2 personnel)

#### 5. Definition of Terms

Not Applicable

#### 6. Additional sources of information

##### 6.1 Internet location of additional information/report

Not Applicable

##### 6.2 Reporting Schedule

Not Applicable

##### 6.3 Disposal Table

Waste Stream	Medium	Manifest #	Quantity (tons)	Treatment	Disposal Facility
Hazardous Waste	Soil/sludge < 6"	017806063JJK	25.52	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806064JJK	26.41	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806065JJK	25.24	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806066JJK	26.55	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806038JJK	27.44	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806039JJK	27.93	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806040JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806041JJK	25.97	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806042JJK	27.35	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806043JJK	25.61	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806044JJK	24.87	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806045JJK	26.11	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806046JJK	25.76	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806047JJK	24.13	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806048JJK	24.64	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806049JJK	25.73	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806050JJK	24.82	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806051JJK	26.14	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806052JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806053JJK	24.58	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806055JJK	24.32	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806054JJK	26.7	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806056JJK	23.48	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806057JJK	26.35	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806058JJK	26.87	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806059JJK	22.98	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806060JJK	27.62	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806061JJK	27.52	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806062JJK	24.15	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806069JJK	26.54	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806067JJK	26.57	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806068JJK	26.31	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806070JJK	26.26	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806072JJK	24.97	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806071JJK	24.73	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806073JJK	25.39	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806074JJK	25.04	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806075JJK	25.91	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806076JJK	25.09	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806077JJK	25.48	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806079JJK	25.03	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806078JJK	25.78	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806080JJK	26.17	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806081JJK	28.27	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806082JJK	27.47	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806083JJK	26.61	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806084JJK	27.49	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869590JJK	24.99	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869589JJK	26.97	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869588JJK	24.61	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806087JJK	25.51	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017806086JJK	25.82	Stabilization	Landfill







Hazardous Waste	Soil/sludge < 6"	017869984JJK	24.74	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869981JJK	25.39	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869983JJK	31.61	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869982JJK	25.18	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869979JJK	25.96	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869980JJK	24.18	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869978JJK	25.59	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869976JJK	31.7	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869977JJK	25.66	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869975JJK	25.85	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869974JJK	25.06	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869973JJK	24.23	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869971JJK	27.51	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869972JJK	22.41	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869970JJK	20.55	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869968JJK	20.83	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869969JJK	22.15	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869967JJK	22.14	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869966JJK	22.32	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869965JJK	24.29	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869964JJK	25.09	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869962JJK	24.17	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869963JJK	22.81	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869961JJK	22.29	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869960JJK	23.38	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869958JJK	23.21	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869959JJK	23.76	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869956JJK	18.07	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869957JJK	20.46	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869954JJK	20.06	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869955JJK	20.4	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869953JJK	21.3	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869952JJK	25.07	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869949JJK	23.53	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869950JJK	26.79	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	018072502JJK	24.44	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	017869951JJK	25.25	Stabilization	Landfill
Hazardous Waste	Soil/sludge < 6"	018072503JJK	23.94	Stabilization	Landfill
Total Tonnage			7585.385		

## 7. Situational Reference Materials

Not Applicable